

Collin Jackson

140 9th St. San Francisco, CA 94103 · [415-265-9320](tel:415-265-9320) · collin.jackson@gmail.com

WORK EXPERIENCE

Google / Staff Software Engineer 2005, 2007, 2008, 2015 – 2018 • *Mountain View*

- Led Flutterfire, open source project which connects Google's mobile dev framework to Firebase services.
- Supported launch of Flutter's first major Firebase customer, Hamilton, with >1M installs.
- Coordinated a global team of internal and external developers contributing to Flutter interoperability.
- Top 500 Stack Overflow contributor, supporting Flutter community with hundreds of code samples.

Apportable / Founder and CEO 2010 – 2015 • *San Francisco*

- Founded and led 70-person developer tools company.
- Raised \$13M in investment from institutional and angel investors.
- Steered the company through acquisition by Google in May 2015.

Carnegie Mellon University / Assistant Research Professor 2009 – 2012 • *Moffett Field*

- Led research to improve browser security for billions of users while supervising Ph.D. and masters students; see below for list of publications and grants.
- Co-inventor of HTTP Strict Transport Security (HSTS), a widely deployed web security standard.

Betable / Frontend Engineer 2008 – 2010 • *San Francisco*

- Implemented web front-end for early-stage startup using Ruby on Rails and AWS
- Used semantic HTML, CSS, and JavaScript to develop maintainable, cross-browser code
- Evangelized agile technical process including continuous integration and peer code reviews

Cooliris / Software Engineering Consultant 2006 – 2010 • *Palo Alto*

- Created the first version of the flagship 3D media viewer for Firefox and Google Chrome
- The company went on raised over \$18M in VC capital funding and was acquired by Yahoo!

Department of Homeland Security / Privacy Technology Analyst Intern 2005 • *Alexandria*

- Contributed to internal guidelines for privacy protections in government technology

Center for Democracy and Technology / Security Research Consultant 2004 – 2005 • *Washington, DC*

- Investigated fraudulent websites and malicious software, compiling evidence for lawsuits

Hasbro / Web Application Developer Consultant 2004 – 2008 • *Seattle*

- Designed, developed, and maintained community-oriented public web applications
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EDUCATION

Ph.D., Computer Science, Stanford University (2009) GPA: 4.0

Dissertation: *Improving Browser Security Policies*

M.S., Computer Science, Stanford University (2008) GPA: 4.0

B.S., *summa cum laude*, Yale University (2004) GPA: 3.98

with distinction in the Computer Science major and the Mathematics and Philosophy major

TEACHING

- Browser Security (2010, 2011) *Instructor, CMU 96834*
- Web Application Security and Privacy (2010, 2011) *Instructor, CMU 96831*
- Web Programming and Security (2009) *Co-Instructor, Stanford CS142*
- Computer and Network Security (2007, 2008) *Teaching Assistant, Stanford CS155*

AWARDS

- Mozilla Security Award (2008, 2009, 2010)
- Computerworld Horizon Award for Cutting Edge Technologies (2006)
- National Science Foundation Graduate Research Fellowship (2004 – 2007)
- Yale University Undergraduate Prize in Computer Science (2004)

PATENTS

- Browser system and method for warning users of potentially fraudulent websites (Google)
- Secure cross-domain communication for web mashups (Microsoft)
- Protection and communication abstractions for web browsers (Microsoft)

SELECTED RESEARCH

- Emily Stark, Lin-Shung Huang, Dinesh Israni, Collin Jackson, and Dan Boneh. The case for prefetching and prevalidating TLS server certificates. In Proc of the 19th Network & Distributed System Security Symposium (NDSS 2012).
- Eric Y. Chen, Jason Bau, Charles Reis, Adam Barth, and Collin Jackson. App Isolation: Get the Security of Multiple Browsers with Just One. In Proc of the 18th ACM Conference on Computer and Communications Security (CCS 2011).
- Zack Weinberg, Eric Chen, Pavithra Ramesh Jayaraman, and Collin Jackson. I Still Know What You Visited Last Summer: Leaking browsing history via user interaction and side channel attacks. In Proc. of the IEEE Security and Privacy Symposium (Oakland 2011).
- Lin-Shung Huang, Zack Weinberg, Chris Evans, Collin Jackson. Protecting Browsers from Cross-Origin CSS Attacks. In *Proceedings of the 17th ACM Conference on Computer and Communications Security (CCS 2010)*.
- Gaurav Aggarwal, Elie Bursztein, Dan Boneh, and Collin Jackson. An Analysis of Private Browsing Modes in Modern Browsers. In *Proceedings of the 19th USENIX Security Symposium. (USENIX Security 2010)*.
- Daniel Bates, Adam Barth, and Collin Jackson. Regular Expressions Considered Harmful in Client-Side XSS Filters. In *Proceedings of the 19th International World Wide Web Conference. (WWW 2010)*.
- Adam Barth, Collin Jackson, and John C. Mitchell. Securing Browser Frame Communication. In *Communications of the ACM (CACM 2009)*.
- Collin Jackson, Adam Barth, Andrew Bortz, Weidong Shao and Dan Boneh. Protecting Browsers from DNS Rebinding Attacks. In *ACM Transactions on the Web (TWEB 2009)*.
- Adam Barth, Collin Jackson, and John C. Mitchell. Robust Defenses for Cross-Site Request Forgery. In *Proceedings of the 15th ACM Conference on Computer and Communications Security (CCS 2008)*.
- Adam Barth, Collin Jackson, and John C. Mitchell. Securing Browser Frame Communication. In *Proceedings of the 17th USENIX Security Symposium (USENIX Security 2008)*.
- Collin Jackson and Adam Barth. ForceHTTPS Cookies: A Defense Against Eavesdropping and Pharming. In *Proceedings of the 17th International World Wide Web Conference (WWW 2008)*.
- Helen J. Wang, Xiaofeng Fan, Jon Howell, and Collin Jackson. Protection and Communication Abstractions for Web Browsers in MashupOS. In *Proceedings of the 21st ACM Symposium on Operating Systems Principles (SOSP 2007)*.
- Collin Jackson, Adam Barth, Andrew Bortz, Weidong Shao, and Dan Boneh. Protecting Browsers from DNS Rebinding Attacks. In *Proceedings of the 14th ACM Conference on Computer and Communications Security (CCS 2007)*
- Collin Jackson and Helen J. Wang. Subspace: Secure Cross-Domain Communication for Web Mashups. In *Proceedings of the 16th International World Wide Web Conference (WWW 2007)*.
- Collin Jackson, Andrew Bortz, Dan Boneh, and John C. Mitchell. Protecting Browser State from Web Privacy Attacks. In *Proceedings of the 15th International World Wide Web Conference (WWW 2006)*.
- Blake Ross, Collin Jackson, Nick Miyake, Dan Boneh, and John C. Mitchell. Stronger Password Authentication Using Browser Extensions. In *Proceedings of the 14th USENIX Security Symposium (USENIX Security 2005)*.